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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/400,865	09/21/1999	FEDERICO CANINI	3572-6	3921

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EXAMINER

NGUYEN, SANG H

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/400,865

Applicant(s)

CANINI ET AL.

Examiner

Sang H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,9,18,23,24 and 31-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,18,23,24 and 31-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 February 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Response to Amendment***

The present Office action is made in response to Amendment "D" filed on 01/21/03 as Paper No. 17 and Supplemental amendment filed on 03/09/03 as Paper No 19. It is noted that the present application contains claims 1-2, 9, 18, 31-63 by Amendment "D" and Supplemental Amendment.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 18, 23-24, and 62-63 are rejected under 35 U.S.C. 102(b) as being anticipated by Freyman et al (U.S. Patent No. 5,979,760).

Regarding claims 1-2, 23-24, and 62-63; Freyman discloses the claimed invention as an optical device and a method for aiming along an axis Z (figure 2 as to indicate from the light source [17] to reading zone barcode) and visually indicating a reading zone of a barcode target (figure 2), the optical device comprising:

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\* at least one illuminating assembly (figures 2 and 12) active on the reading zone portion of the barcode target (31 of figure 12) along an optical emission path (21a,21d,21b,21e,21c of figure 2), wherein the at least one illuminating assembly having a light source (17 of figure 2) for emitting a light beam, a diaphragm/stop (29 of figure 2 [col.1 lines 54-55] or 169 of figure 8 [col.4 lines 54-56]) having a preset shape (figure 2) for selecting a portion of the light (21d,21b,21e of figure 2) generated by the light source (17 of figure 2) for allowing propagation of the light beam (21d,21b,21e of figure 2) and preventing propagation of a remaining portion of the light beam (21a,21c of figure 2), and a converging lens (19 of figure 2) placed downstream of the diaphragm (29 of figure 2) for collecting the shaped light coming from the diaphragm (29 of figure 2) and projecting the shape light onto the reading zone portion of barcode target (31 of figures 2 and 12), wherein the converging lens (19 of figure 2) is separated from the diaphragm (29 of figure 2) and positioned at a predetermined distance (figure 2) away from the diaphragm, thereby providing on the reading zone immediate visual feedback regarding the position of the shape light relative to reading zone (figures 4 and 12, and col.3 lines 43-50). See figures 1-13.

Regarding claim 2, Freyman et al discloses the converging lens (19 of figure 2) is positioned at a distance away from the diaphragm (29 of figure 2) such that the shape light coming from the diaphragm (29 of figure 2) is focused onto the reading zone portion of the barcode target (31 of figure 2).

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Regarding claim 18; figures 8-9 of Freyman et al discloses a tubular element associated with a holding plate for light source and isolate the light emitted by the light source and hold the diaphragm and converging lens.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 31-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Freyman et al (U.S. Patent No. 5,979,760) in view of Massieu et al (U.S. Patent No. 5,397,885, submitted by PTO-892 in Paper No. 7).

Regarding claims 31-32, 53-54, and 59-61; Freyman discloses the claimed invention as an optical device and a method for aiming along an axis Z (figure 2 as to indicate from the light source [17] to reading zone barcode) and visually indicating a reading zone of a barcode target (figure 2), the optical device comprising:

\* at least one illuminating assembly (figures 2 and 12) active on the reading zone portion of the barcode target (31 of figure 12) along an optical emission path (21a21d,21b,21e,21c of figure 2), wherein the at least one illuminating assembly having a light source (17 of figure 2) for emitting a light beam, a diaphragm/stop (29 of figure 2 [col.1 lines 54-55] or 169 of figure 8

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[col.4 lines 54-56]) having a preset shape (figure 2) for selecting a portion of the light (21d,21b,21e of figure 2) generated by the light source (17 of figure 2) for allowing propagation of the light beam (21d,21b,21e of figure 2) and preventing propagation of a remaining portion of the light beam (21a,21c of figure 2), and a converging lens (19 of figure 2) placed downstream of the diaphragm (29 of figure 2) for collecting the shaped light coming from the diaphragm (29 of figure 2) and projecting the shape light onto the reading zone portion of barcode target (31 of figures 2 and 12), wherein the converging lens (19 of figure 2) is separated from the diaphragm (29 of figure 2) and positioned at a predetermined distance (figure 2) away from the diaphragm, thereby providing on the reading zone immediate visual feedback regarding the position of the shape light relative to reading zone (figures 4 and 12, and col.3 lines 43-50). See figures 1-13.

Freyman et al discloses all of features in claimed invention except for at least two first illuminating assemblies disposed on opposite sides with respect to an aiming axis Z. However, Massieu et al teaches that it is known in the art to provide at least two first illuminating assemblies (figures 1) and at least two second illuminating assemblies (figure 1) disposed on opposite sides relative to the aiming axis (figures 1-3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify optical device and a method for aiming along an axis Z and visually indicating a reading zone of a barcode target Freyman et al with at least two first illuminating assemblies and at least two second illuminating assemblies disposed on opposite

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sides relative to the aiming axis as taught by Massieu et al for the purpose of reading different bar codes having different widths of bar codes.

Regarding claims 33-34; figures 1 and 2 of Massieu et al discloses at least two first illuminating assemblies (figures 1) and at least two second illuminating assemblies (figure 1) disposed symmetrically relative to the aiming axis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Freyman et al at least two first illuminating assemblies and at least two second illuminating assemblies disposed symmetrically relative to the aiming axis as taught by Massieu et al for the purpose of reading different bar codes having different widths of bar codes.

Regarding claim 35; Massieu et al discloses the light source or illumination strip (15 of figure 2) an inclined optical beam with respect to a first reference plan and a second reference plane lying perpendicular and intersecting each other along the aiming axis (col.5 lines 1-20). It would have been to one of ordinary skill in the art at the time the invention was made to include Freyman et al's the optical device as taught by Massieu et al for the purpose of reading different bar codes having different widths of bar codes on the different plane.

Regarding claims 36-38, 40, and 42; it is inherent in Massieu et al and Freyman et al's the optical device that wherein the optical paths of the first illuminating assemblies and the second illuminating assemblies are set, relative to the axis Z, at an angle of  $+Q_v/2$  and  $-Q_v/2$ , respectively, on the first reference plane XZ and at an angle of  $+Q_h/2$  and  $-Q_h/2$ , respectively, on the second reference plane YZ.

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Regarding claims 9, 39, 41, 43-48, and 58; Massieu et al discloses at least one optical deflection prism or a pair of optical deflection prism (18,19 of figure 2) disposed on the optical emission path (figure 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Freyman et al at least one optical deflection prism or a pair of optical deflection prism as taught by Massieu et al for the purpose of reducing light noise beam from light source.

Regarding claim 49, figure 12 of Freyman et al discloses the illuminating assembly comprises a V-like light guide disposed between the light source and the converging lens on the emission path.

Regarding claims 50-52 and 55-57; Massieu et al discloses a means for determining a distance and orientation (12a and 12b of figure 2) of the reading zone of barcode (12 of figure 2) having a lens (13 of figure 2) for picking up the light diffused from the reading zone (12), means for sensing (14 of figure 2) the image of the light diffused from the reading zone (12) and image lens (13), means for processing the image by the sensing means (14) for calculating the distance and orientation of the reading zone of barcode (col.6 lines 25-35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Freyman et al's the optical device as taught by Massieu et al for the purpose of measuring or calculating the distance and orientation with different from the bar codes and low cost system.



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*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hippenmeyer et al (6,021,946) discloses self-focusing bar code reader and optical receiver system, or Gehmann (4,856,879) discloses aiming device.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Frank Font, can be reached on (703)308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

SN

Nguyen/ sn

April 25, 2003

  
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